

FOREWORD

Our Nation is at war. Security of our homeland, the Global War on Terrorism and sustained engagement around the world define today's complex and uncertain operating environment. The future will be no less uncertain, full of defined and undefined dangers to our Nation.

We must prepare now to meet the challenges of tomorrow. Rather than focusing on a single, well-defined threat, or geographic region, we must develop a range of complementary and interdependent capabilities that will enable future Joint Force Commanders to dominate any adversary or situation. A capabilities-based approach to concept and force development, as articulated in the 2001 Quadrennial Defense Review, is the major focus of defense transformation.

Transforming our Nations' military capabilities while at war requires a careful balance between sustaining and enhancing the capabilities of current forces to fight wars and win the peace while investing in the capabilities of future forces. Joint concept development and experimentation, science and technology (S&T) investment, and future force design that enables interdependent network-centric warfare will ensure future capabilities meet the requirements of tomorrow's Joint Force. Similarly, accelerated fielding of proven technologies will enhance the capabilities of our current forces at war.

As directed by the Secretary of Defense's Transformation Planning Guidance, the Army presents its first annual update to the Army Transformation Roadmap. Army Transformation will meet the needs of future Joint Force Commanders by providing a campaign quality Army with a joint and expeditionary mindset.



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TPG Requirements and Army Transformation Roadmap Crosswalk

Requirement	Response
1. Use the definition of transformation presented in the TPG.	Chapter 1
2. Describe how the organizations plan to implement transformational architectures for future concepts, consistent with Joint Operating Concepts and supporting Joint and Service mission concepts, to include when and how capabilities will be fielded.	Chapters 3-6, and 8
3. Identify critical capabilities from other Services and agencies required for success.	Chapter 3-6
4. Identify changes to organizational structure, operating concepts, doctrine and skill sets of personnel.	Chapters 3-6 and 8
5. As possible, include programmatic information that includes appropriation breakouts through the FYDP necessary for desired capabilities.	Chapter 9 and Annex B
6. Compartmented annex to expand identification of key capabilities and fully represent the spectrum of Service capabilities.	Annex F
7. All Roadmaps will directly address the interoperability priorities on page 16:	
a. Standard operating procedures and deployable Joint command and control processes, organizations, and systems for the Standing Joint Force Headquarters;	Chapter 7
b. A common relevant operational picture for Joint forces;	Chapters 2, 7, and 8
c. Enhanced intelligence, surveillance, and reconnaissance capabilities;	Chapter 7 and 8
d. Selected sensor-to-shooter linkages prioritized by contribution to the Joint Operating Concepts;	Chapter 7 and 8
e. Reachback capabilities that provide global information access;	Chapter 7 and 8
f. Adaptive mission planning, rehearsal, and Joint training linked with C4ISR.	Chapter 7 and 8
8. Additionally, Services will explicitly identify initiatives undertaken to improve interoperability in the following areas:	
a. Deployment of a secure, robust and wideband network;	Chapter 7 and 8
b. Adoption of post before process intelligence and information concepts;	Chapter 7 and 8
c. Deployment of dynamic, distributed, collaborative capabilities;	Chapter 7 and 8
d. Achievement of data-level interoperability;	Chapter 7 and 8
e. Deployment of net-ready nodes of sensors, platforms, weapons and forces.	Chapter 7 and 8
9. Service Roadmaps will identify plans for achieving these critical capabilities by ensuring that:	
a. Systems are capable of participating in a Joint Technical Architecture collaborative environment;	Chapter 7 and 8
b. Systems are tested and evaluated to determine actual capabilities, limitations and interoperability in realistic Joint Warfare scenarios and in performing realistic missions;	Chapter 7 and 8
c. New C4ISR, weapons and logistics systems incorporate IP-protocols;	Chapter 7 and 8

Requirement	Response
<ul style="list-style-type: none"> d. Systems are capable of post before processing functionality; e. Selected legacy systems are retrofitted with these capabilities. 	<p>Chapter 7</p> <p>Chapter 8</p>
<p>10. Transformational intelligence capabilities, specifically those mentioned on page 17:</p>	
<ul style="list-style-type: none"> a. Allow us to warn of emerging crises and continuously monitor and thwart our adversary's intentions; 	Chapter 7
<ul style="list-style-type: none"> b. Identify critical targets for, measure and monitor the progress of, and provide indicators of effectiveness for U.S. effects-based campaigns; 	Chapter 7
<ul style="list-style-type: none"> c. Persist across all domains and throughout the depth of the global battlespace, supplying near-continuous access to our most important intelligence targets; 	Chapter 7
<ul style="list-style-type: none"> d. Provide horizontal integration, ensuring all systems plug into the global information grid, shared awareness systems, and transformed command, control and communications (C3) systems. 	Chapter 7
<p>11. Joint and Service Roadmaps will address plans to implement other aspects of transformation to include:</p>	
<ul style="list-style-type: none"> a. Incentives to foster concept-based experimentation; 	Chapter 7
<ul style="list-style-type: none"> b. Use of prototyping methodologies; 	Chapter 7
<ul style="list-style-type: none"> c. Development of training and education programs; 	Chapter 7 and 8
<ul style="list-style-type: none"> d. Information superiority, the identification and employment of all its elements, how it should be represented in war plans and Joint experimentation, and how to achieve it; 	Chapter 7
<ul style="list-style-type: none"> e. Seamless integration of operations, intelligence and logistics; 	Chapter 7
<ul style="list-style-type: none"> f. Support Standing Joint Force Headquarters and Joint Command and Control; 	Chapter 7 and 8
<ul style="list-style-type: none"> g. Metrics to address the six transformational goals and transformational operating concepts. 	Annex C
<p>12 How experimentation programs meet the TPG experimentation criteria (pg 18) and support the priorities for experimentation. The criteria will address:</p>	
<ul style="list-style-type: none"> a. Scientific method and its role in U.S. Armed Forces achieving competitive advantage; 	Chapter 7
<ul style="list-style-type: none"> b. Experimentation in exercises and operations and considerations for design, data collection, analysis and sharing results; 	Chapter 7
<ul style="list-style-type: none"> c. Experimentation with virtual capabilities and threats to explore mid- and far-term transformational possibilities; 	Chapter 7
<ul style="list-style-type: none"> d. Experimentation with aggressive threats that include asymmetric capabilities, the possibility of technological breakthroughs, and that span a variety of environments; 	Chapter 7
<ul style="list-style-type: none"> e. Use of red teams, supported with fenced funding and operating at the tactical, operational, and strategic levels; 	Chapter 7
<ul style="list-style-type: none"> f. Establishment of procedures and repositories for capturing and sharing lessons learned. 	Chapter 7

EXECUTIVE SUMMARY

CHAPTER 1

FOUNDATION FOR THE FUTURE

The Nation requires a Joint Force that is full-spectrum dominant to meet the strategic mandates established by the *National Security Strategy* (NSS) and further elaborated with the *Defense Planning Guidance* (DPG); *Quadrennial Defense Review* (QDR); *Transformation Planning Guidance* (TPG); Joint Operations Concepts (JOpsC) and Joint Operating Concepts (JOCs). As emphasized in the NSS, the military must transform in order to provide the President with a wider range of military options to discourage aggression and any form of coercion against the United States. This transformation occurs within a complex, uncertain, and dynamic 21st century security environment. Joint transformation affirms the critical role of land power to dominate the highly complex land environment that comprises the heart of most joint operations. Combatant commanders have clear and enduring needs to swiftly defeat the efforts of regional aggressors, win decisively in extended conflicts, or execute smaller-scale contingency operations. A campaign-quality Army with a joint and expeditionary mindset enables the Joint Force to exercise direct, continuous, and comprehensive control over terrain, resources, and people. To provide dominant land power, the Army balances its core competencies and capabilities to train and equip Soldiers and grow leaders and provide relevant and ready land power capability to the combatant commander and the joint team.

The *2003 Army Transformation Roadmap* (ATR) details Army actions to identify and build required capabilities now, allowing for better execution of joint operations by the Current Force while developing Future Force capabili-

ties essential to provide relevant, ready, responsive, and dominant land power to the Future Joint Force. The ATR complies with the DPG directive to report on how Army Transformation fully supports and is congruent with Defense Transformation efforts through the Future Years Defense Program (FYDP). It fulfills the TPG requirement to demonstrate how the Army provides the capabilities through and just beyond the FYDP in support of the joint force commander's (JFC's) ability to execute emerging JOCs within the context of the JOpsC. The JOCs are Major Combat Operations (MCO), Strategic Deterrence (SD), Stability Operations (SO), and Homeland Security (HLS). The ATR also outlines the capabilities Army forces require from other Services within the context of Defense Transformation to meet future JFC requirements.

Transformation is a process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people, and organizations. These combinations exploit the Nation's advantages and protect against asymmetric vulnerabilities to sustain strategic position. This helps underpin peace and stability in the world. The Army's Transformation Strategy has three components: the transformation of Army culture, the transformation of processes—risk adjudication using the Current to Future Force construct, and the development of inherently joint transformational capabilities.

The first component is the transformation of Army culture through leadership and adaptive institutions. The complexity and uncertainty envisioned in the future operational environment require that Army personnel and institutions possess superiority in adaptation, innovation, and

EVOLVING ARMY TRANSFORMATION

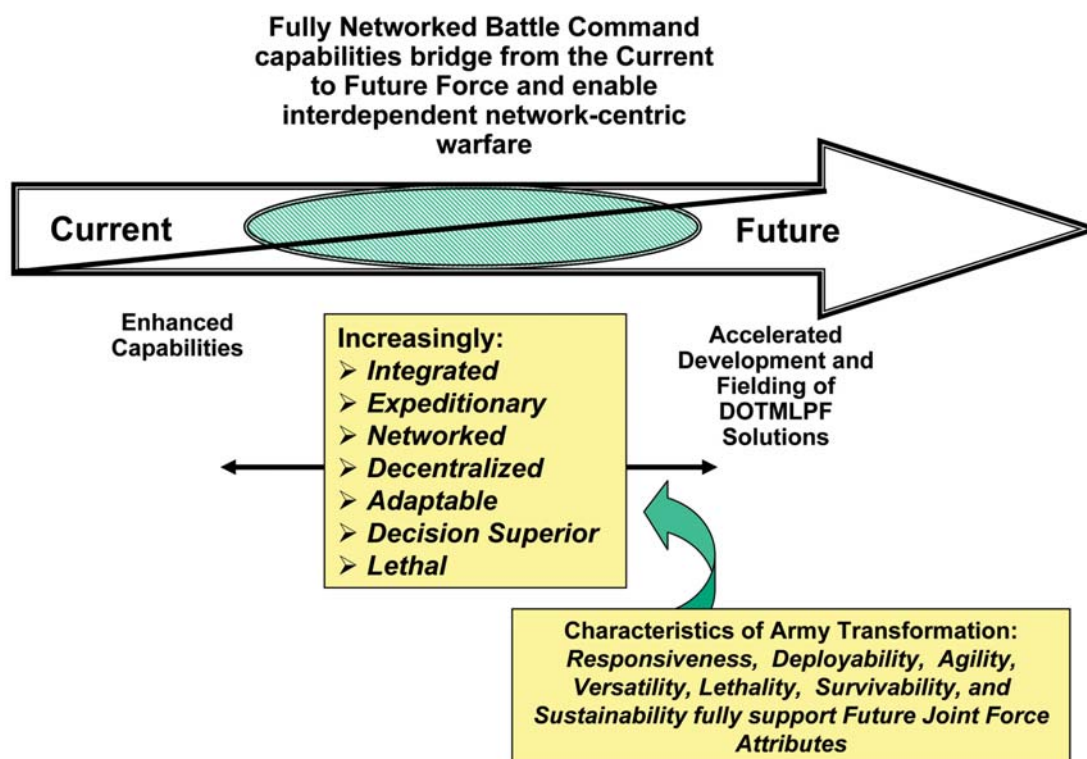


Figure 1. Current to Future Force Construct

learning. Leaders shape behavioral change, and this is the first step to cultural change. A transformational cultural shift will carry over into other areas. Ultimately, the ability to rapidly adapt processes and resulting Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) solutions will be the measure of the Army's agility—and proof of its culture of innovation.

The second component is the transformation of processes—risk adjudication using the Current to Future Force construct. Joint Forces must be integrated, expeditionary, networked, decentralized, adaptable, decision superior, and lethal. The combination of Joint Force attributes and joint concepts provides a foundation for Army warfighting concepts. In collaboration with the other Services and U. S. Joint Forces Command (USJFCOM), the Army conducts experimentation, analysis, and capabilities assessment through the Joint Capabilities and Integration

Development System (JCIDS) to develop the capabilities that operationalize joint concepts.

The Army frames its transformation through the interaction of constantly evolving capabilities between Current to Future Forces (Figure 1). The Current Force is the operational Army of today, trained and equipped to conduct operations as part of today's Joint Force. The Future Force is the operational force the Army continuously seeks to become. Informed by national security requirements and Department of Defense (DOD) guidance, the Future Force is the strategically responsive, joint interdependent, precision maneuver force, dominant across the full range of military operations envisioned for the future global security environment. While the Army develops the Future Force, it simultaneously accelerates select Future Force DOTMLPF capabilities to enhance the Current Force. Similarly, the operational experience of the Current Force directly informs further progress toward Future Force capabilities. Fig-

ure 1 depicts this continuum as the shaded area, a transitional zone.

In addition, the Current to Future Force construct provides a framework to base smart business decisions that reduce Current Force risks and provide greater force capabilities per dollar. The Army is pursuing a range of actions to enhance Current Force capabilities while developing the Future Force. Modular, capabilities-based unit designs; the Force Stabilization and Unit Manning System; and networked battle command capabilities are three examples of ongoing Army efforts to create smaller, faster, lighter, and more lethal Army forces for interdependent joint operations now and into the future. These and other actions are explained in great detail in subsequent chapters.

The third component is the building of transformational capabilities to the Joint Force. As the Army develops enhanced operational capabilities over time and integrates those capabilities in the Current and Future Forces, it creates synergies that support the JOCs. A full-spectrum capable Joint Force that can see first, understand first, act first, and finish decisively will successfully execute the JOCs. To achieve this, a knowledge-based Army exploits advanced information technologies and space-based assets to enable network-centric battle command—fully integrated within the joint, interagency and coalition framework. By developing more modular, strategically responsive organizations while institutionalizing a joint and expeditionary mindset, the Army significantly increases the combatant commander's ability to rapidly defeat any adversary or control any situation across the range of military operations.

In conjunction with building more strategically responsive organizations is the establishing of a total force unit rotation and readiness plan that provides ready and relevant land power to the joint force commander. Starting in FY04, the Army is redesigning the force to achieve a 15-day deployable Active Component (AC).

Active Component forces provide rapidly responsive, agile, and expeditionary forces that respond in the first fifteen days of an operation. Campaign quality forces comprised of AC and Reserve Component (RC) units provide the depth and capability necessary to conduct sustained land operations. Reserve Component forces provide strategic depth and lead homeland security efforts. The Army is integrating these changes within the context of the JOCs to remain synchronized with Joint Force capabilities.

CHAPTER 2

BATTLE COMMAND

Battle command is the art and science of applying leadership and decision making to achieve mission success. A JFC's ability to dominate any adversary or situation in full-spectrum operations rests on his ability to make qualitatively better decisions than an adversary and act at a tempo that simply cannot be matched. The Army views battle command as the essential operational capability that fundamentally enables the conduct of future joint operations. To implement the JOpsC and JOCs and achieve decision superiority, the Future Joint Force will exercise battle command within an inherently joint, top-down network that provides common situational understanding.

As the Army transforms, battle command forms the critical bridge from Current to Future Forces. The Army's battle command concept and strategies are consistent with emerging Joint Command and Control (JC2) and Battlespace Awareness (BA) functional concepts within the JOpsC. The Future Force network will be integrated into the Global Information Grid (GIG) by a highly mobile, self-organizing, self-healing, multilevel secure, resilient network that transports multiple forms of information among multiple operational/tactical echelons. The Future Force Network is being designed to conform to the Joint Technical Architecture and to the GIG architectures.

CHAPTER 3

MAJOR COMBAT OPERATIONS JOINT OPERATING CONCEPT (MCO JOC)

U.S. combatant commanders are developing and refining a series of new joint concepts that will serve as the cornerstone in the efforts to create and maintain the future military capabilities required in the years ahead. Joint concept development occurs within an evolving framework that includes the overarching JOpsC and the four supporting Joint Operating Concepts (JOCs).

Each JOC is not a stand-alone operation or mission set. There is a fundamental yet complex interrelationship among the four cornerstone JOCs. The Homeland Security and Strategic Deterrence JOCs are inextricably linked to their like-named strategic imperatives. By their very nature, these two JOCs are, and will continue to be, continuous and ongoing regardless of major combat or stability operations. Stability Operations are military operations conducted with other elements of national power and multinational partners to establish order and promote stability. Major Combat Operations are the ultimate military coin of the realm for a global power. The ability to rapidly and successfully prosecute MCO anywhere has fundamental deterrent value that underscores the credibility and effectiveness of joint forces for full-spectrum operations, enhances stability in key regions, and promotes U.S. homeland security.

Within the operations environment, Army forces must be designed, organized, and trained for responsive and successful execution of JOCs, and rapid transition between the mission sets, tasks and conditions inherent in the JOCs. It is essential to recognize that JOCs are usually implemented simultaneously, whether in multiple regions, in a single JOA, or both. The Army, as part of the joint team, must retain the capacity to support global operations while

maintaining the ability to rapidly and seamlessly transition to new requirements.

Major Combat Operations are large-scale conflicts against an organized adversary possessing significant military capability and the will to employ that capability in direct opposition to, or in a manner threatening to, U.S. national security. The central objective of U.S. military forces in the Major Combat Operations Joint Operating Concept (MCO JOC) is to achieve victory in battles, campaigns, and wars through the fluid and coherent application of joint capabilities within an inherently joint, interagency and multinational environment.

The MCO JOC is predicated upon a globally integrated network that links U.S. military forces and all relevant agencies and coalition partners; facilitates collaboration and shared understanding; and serves as an integrating mechanism to achieve unity of action. Such a networked environment will stimulate synergy, adaptability, and opportunism and thereby generate greater effectiveness, efficiency, and economy.

The MCO JOC remains under development and does not yet address how the JFC will execute an MCO. Future concept development and experimentation continue to refine Army capabilities. Wargaming and daily combat experience continue to refine Army capabilities that support this JOC. Army capabilities that support MCO are the most dynamic in that failure to conduct MCO will destroy credibility to perform other, less dangerous, operating concepts. Army capability in support of MCO underscores credibility for full-spectrum operations (in which control of land, people, and resources is required to achieve military victory) and to set the conditions to achieve strategic and political objectives. Key Army capabilities of the MCO JOC will include:

- Modular, combined arms forces, rapidly deployable, in ready-to-fight configurations, into a JOA at time and location required by the JFC

- Battle command on-the-move that supports rapid, integrated, near-simultaneous operations throughout the JOA
- Enhanced Soldier, platform and force protection capabilities and enhanced theater support capabilities

CHAPTER 4

STABILITY OPERATIONS JOINT OPERATING CONCEPT (SO JOC)

The Joint Force conducts the Stability Operations Joint Operating Concept (SO JOC) under these conditions: prior to initiation of combat operations (to prevent conflict); during combat operations (to mitigate the effects of conflict); as a result of combat operations (to consolidate gains and rebuild damaged societies); and as a stand-alone operation.

The military challenge inherent in the SO JOC flows from the premise that, to create conditions amenable to political reconciliation, the joint force must establish and sustain control of land, people, and resources within the JOA. The SO JOC envisions an inextricable link to interagency and multinational efforts. Stability Operations are proactive—they respond and shape the regional battlespace in such a way that resistance is impractical and assistance is welcome. Stability Operations are inherently manpower intensive. They place a high demand on the military capabilities required to establish the safe and secure conditions necessary for all elements of the joint, interagency and multinational team's freedom of action to collectively achieve success.

The Army provides the majority of operational and sustainment capabilities for the Joint Force across the full scope of SO missions and tasks. As a result, Army capabilities will include:

- Modular, tailored, multifunction forces rapidly deployable into a JOA at times and locations required by the JFC

- Increased special operations forces (SOF) capabilities
- Increased security and protection capabilities for U.S. forces and assets, non-DOD U.S. personnel, nongovernmental organizations (NGOs) and key assets and infrastructure within the JOA

CHAPTER 5

STRATEGIC DETERRENCE JOINT OPERATING CONCEPT (SD JOC)

Strategic Deterrence is the prevention of aggression or coercion by adversaries that threaten the survival of the United States or its national interests. Forward-stationed, forward-deployed, and expeditionary forces around the world, as well as Theater Security Cooperation actions, provide inherent deterrent value and assist in maintaining situational understanding. Similarly, active and passive homeland defense capabilities are major contributors to strategic deterrence. The Strategic Deterrence Joint Operating Concept (SD JOC) describes how a JFC will plan, prepare, deploy, employ, and sustain a joint force to achieve specific deterrence objectives established by the Nation's leaders. Army capabilities that support MCO and SO greatly enhance the deterrent value of each, and therefore directly support the overall concept of strategic deterrence.

The ATR addresses the SD JOC, focusing on influencing adversaries' decision-making calculus along three fundamental approaches: deterrence by benefit denial, deterrence by cost imposition, and constraint to mitigate the perceived consequences/costs. In addition to describing required joint capabilities and interdependencies, the ATR addresses these Army capabilities:

- Enhanced SOF direct action and special reconnaissance

- Modular combat forces that are tailorable as part of a joint team for limited duration Global Strike operations
- Ground-based space control capabilities to ensure JFC access to key command and control (C2) and ISR networks and systems, and to deny an adversary the same
- Ground-based integrated missile defense capabilities for homeland defense and protection of forward-deployed forces and allies
- Increased counterterrorism and counter-weapons of mass destruction (WMD) capabilities

CHAPTER 6

HOMELAND SECURITY JOINT OPERATING CONCEPT (HLS JOC)

The Homeland Security Joint Operating Concept (HLS JOC) posits a secure U.S. homeland as the Nation's first national security priority. The HLS JOC describes how the Joint Force performs its responsibilities in support of securing the homeland, specifically how joint forces will conduct Homeland Defense (HLD) against external threats and aggression; provide support to civilian authorities; and support DOD Emergency Preparedness (EP). Army forces provide essential capabilities for successful prosecution of MCO and SO, which directly support HLS through operations in forward regions and the approaches. Army forces also provide capabilities that directly support Joint Force HLS mission sets of HLD, Civil Support (CS) and EP.

In support of the HLS JOC the ATR describes required joint capabilities, Army capabilities that support joint force capabilities and concept execution, and joint interdependencies.

CHAPTER 7

OTHER TRANSFORMATIONAL INITIATIVES

A number of other specific enablers and requirements of the TPG are addressed in the

Roadmap. These initiatives are the foundations of Army Transformation and will ensure consistent growth and Future Force development.

Concept Development and Experimentation (CD&E)—a Joint and Army Partnership

The Army Transformation Concept Development and Experimentation Campaign Plan (AT-CDEP) is based on the goals and objectives for Transformation set forth in the NSS, DPG, QDR, the *National Military Strategy* (NMS) and the TPG. The AT-CDEP supports Army Transformation by identifying what, when, and how the Army must learn in order to field Future Force capabilities this decade. Concept development and experimentation efforts are now focused on achieving Future Force capabilities by developing a body of knowledge linked by a series of experiments; in effect, a campaign of learning. Army experiments have and will continue to achieve the following standards:

- Conduct all integrating and capstone experiments within a joint context
- Address sustained continuous distributed operations, operational maneuver from strategic distances, and shaping and decisive operations for Army forces in a joint context
- Prescribe Army participation in Joint and Service CD&E, to support the integration of air, land, sea, cyber and space domains
- Address the full range of military operations across the DOTMLPF domains

Science and Technology

The Army Science and Technology (S&T) Program is critical to developing the transformational capabilities envisioned for the Current Force and the Future Force. The S&T Program speeds development of the core technologies that will enable a land combat force to dominate potential adversaries. The S&T Program is:

- Developing technologies and prototype systems for the Future Force—with the Future Combat Systems (FCS) as the cornerstone

- Demonstrating innovative technology solutions to achieve leap-ahead or paradigm shifting warfighting capabilities, including:
 - Mobile, secure, self-organizing networks for seamless joint operations
 - Tunable lethality (solid state laser, high-power microwaves, nonlethal weapons) for effects-based operations
 - Autonomous unmanned air and ground systems for increased survivability and reduced logistics
 - Immersive simulations and virtual environment technologies for Soldier, leader and unit training

The S&T Program balances risk, technological developments, military payoffs, and especially time—immediate contributions to today's Army through basic research needed to enable capabilities 20 years in the future. The balance between the near-, mid-, and far-terms is driven by the need to be responsive to warfighter requirements and the responsibility to maintain a long-term perspective that encompasses technological opportunities to achieve leap-ahead warfighting capabilities.

Transforming Army Business Practices

As described in the 2002 *Army Transformation Roadmap*, Transformation applies not only to what the Army does, but how it does it. The Army is refocusing its business practices to generate prompt, decisive and sustained land power capabilities. The following examples convey the flavor of Army business practice transformation:

- Army Logistics Enterprise (ALE) Integration
- Industrial Base Strategic Initiatives
- Ground Systems Industrial Enterprise (GSIE)
- Performance-based Logistics (PBL)
- Simulations and Modeling for Acquisition, Requirements, and Training (SMART) Initiative

Interoperability

Interoperability is the key enabler that allows the Joint Force to remain dominant across the entire spectrum of military operations. The Joint Technical Architecture provides a collaborative environment in which all Service systems can participate. Joint Technical Architecture-Army (JTA-A) is the comprehensive set of baseline standards required for Army and joint interoperability. It is the set of building codes upon which Army command, control, communications, and computers/information management (C4/IM) systems are based. The JTA-A ensures C4/IM-related systems and products provide the technical foundation for a seamless flow of information and interoperability among all systems that produce, use or exchange information electronically. The JTA-A mandates standards and guidelines for system development and acquisition that may reduce costs, development and fielding time for improved systems.

Supporting Transformational Intelligence Requirements

Army Intelligence Transformation represents a fundamental change in the way the Army thinks about and performs intelligence collection, analysis, production, and dissemination. The new focus emphasizes the cognitive requirements of knowledge creation. Intelligence Transformation changes the focus from systems and processes to solutions that improve the warfighter's understanding of the battlespace. Fused intelligence and assessment capabilities provide dominant knowledge to the commander—informing decision making and providing predictive cognizance. Intelligence Transformation delivers high-quality and timely intelligence across the range of military operations.

Fundamental to achieving this new capability is developing actionable intelligence that is tailored to the needs of the decision maker. Actionable intelligence allows greater individual initiative and self-synchronizing among tactical

units. The intelligence challenge is to redefine Army intelligence so that every Soldier is both a contributor to and a consumer of the global intelligence enterprise. While tactical commanders nearest to the fight can leverage modular, tailored packages to develop intelligence, they are also supported by a grid of analytic centers focused on their intelligence needs. To achieve this objective, Army intelligence pursues six fundamental ends:

- **Change Army Intelligence Culture**—Create a campaign quality, joint, and expeditionary mindset through doctrine, operational, and personnel policies, regulations, and organizations, to develop intelligence professionals competent from mud to space who know "how to think" and are focused on the commander at the point of decision.
- **Fix Training**—Reshape training to provide the volume, variety and velocity of intelligence and non-intelligence reporting.
- **Rapid Technology Prototyping**—Develop an agile technology enterprise that enables the intelligence force to respond to a learning enemy with the best technical solutions available in real time.
- **Create the Framework**—Create an information and intelligence grid inherently joint, providing common operational picture (COP), universal visibility of assets, horizontal and vertical integration, and situational understanding, linking every "Soldier as sensor and consumer" to analytic centers.
- **Enhance Tactical Echelons**—Provide robust, flexible, modular, all-source collection and analytical capabilities, born joint, and part of a tactical force capable of independent action but empowered by linkages to a global grid and analytic and collection overwatch.
- **Transform human intelligence (HUMINT) and counterintelligence (CI)**—Grow a CI and HUMINT force with a more tactical focus that provides more relevant reporting.

CHAPTER 8

BUILDING TRANSFORMATIONAL CAPABILITIES

People—The Human Dimension of Transformation

Woven throughout the ATR is the concept that the human dimension of the military's transformation remains the crucial link to both the realization of future capabilities and the enhanced effectiveness of current ones. Army human resource (HR) policies, systems, and enablers encompass military, civilian, contractor, joint and multinational forces to provide the Joint Force with the right individuals and units, at the right place, and at the right time. The Army has started to install comprehensive, integrated, and interoperable HR programs, policies and procedures across all Army components and within the joint, interagency, and multinational environments. In FY03, the Army activated the Human Resource Command (HRC). The Army HRC merged AC and RC personnel commands and the Civilian Personnel Operation Center Management Activity.

In addition to increasing the effectiveness of the HR system, the Army is transitioning to a Force Stabilization and Unit Manning System (FSUMS) that synchronizes assignments of Soldiers to units' operational cycles. The goal of the Force Stabilization and Unit Manning System is to provide ready and effective combat formations to combatant commanders while reducing turbulence, increasing predictability, and providing stability for Soldiers and families.

Leadership, Leader Development, and Education

The art and science of leadership is the Army's stock in trade. Leader development grows competent, confident, self-aware and decisive leaders, prepared for the challenges of full-spectrum operations in joint, interagency and multinational environments. The Army has started to reengineer leader development and training programs to focus on gaining and sustaining the high levels of expertise on technical

and cognitive skills essential for Current and Future Forces. Growing competent, adaptive and self-aware leaders, embodied with the Army warrior culture, is essential to instill a culture of innovation in the Army.

Training

Achieving a ready Current Force today and a transformed Future Force requires a transformation in the way units train for joint operations. The Army's Training Transformation Initiative, supporting the June 2003 *Defense Department Training Transformation Implementation Plan*, provides dynamic, capabilities-based training and mission rehearsal for Army forces to accomplish their mission in joint operations. The Training Transformation Initiative links the focus of Service training to the Joint Training System (JTS) and increases the quantity, quality, and priority of joint training. Army training and assessment capabilities enable this Joint capability to produce a force capable of interdependent network-centric warfare. Three capabilities form the foundation for Training Transformation:

- The Joint Knowledge Development and Distribution Capability improves individual knowledge, skills, and abilities for joint operations.
- The Joint National Training Capability allows a single Service to train in a realistic joint context with other Service forces and joint battle staffs.
- The Joint Assessment and Enabling Capability ensures systematic assessment of Training Transformation plans, programs, and investments to produce continuous improvement of Joint Force readiness.

Organizations

Creating modular organizations is an important component in achieving ready and relevant dominant land power capability for the Joint Force. Over the last four years, the Army has

developed the organizational constructs for truly network-centric capable tactical formations—the Stryker Brigade Combat Team (SBCT) for the Current Force and the Unit of Action (UA) for the Future Force. The Army is also redesigning two of its divisions to enhance modularity of the Current Force while continuing to work on the development of Future Force Units of Employment (UEs). Units of Employment are tailorable, higher-level echelons that integrate and synchronize Army forces for full-spectrum operations at the higher tactical and operational levels of conflict.

Doctrine

Doctrine is a set of fundamental principles that guide action. The U.S. Army Training and Doctrine Command (TRADOC) has developed the Future Force Capstone Concept as well as subordinate and supporting concept and capabilities documents to support Army Transformation. Concurrently, TRADOC developed the doctrine for the Current Force's SBCTs to support the Army's goal to go from concept to initial operating capability (IOC) in three years. TRADOC has also undertaken an initiative to rapidly integrate proven concepts, lessons learned, tests and experimentation results into Army doctrine for maintaining and sustaining the Current Force as the Army transforms to the Future Force.

Materiel

The Army is taking specific steps to develop and field systems that enable Current and Future Forces to provide the capabilities a JFC requires to execute the JOCs. Many of these capabilities come from the procurement and fielding of critical transformational systems and families of systems including:

- The Stryker Family of Armored Vehicles
- The Network, to include the Warfighter Information Network-Tactical (WIN-T)
- The Joint Tactical Radio System (JTRS)

- The Distributed Common Ground System-Army (DCGS-A)
- Soldier Modernization
- The Comanche Armed Reconnaissance Helicopter
- The Future Combat Systems (FCS)
- An Army-standard and Joint-interoperable Battle Command System (BCS)
- Precision Munitions
- Air and Missile Defense Systems
- Critical Sensors
- Distribution-based Logistics (DBL) systems

The Army is investing in other critical technologies based on Future Force capability requirements to spiral into the Current Force to enhance immediate needs of the Joint Force. The ATR highlights materiel programs and related initiatives organized by the functional concepts.

Facilities

Installations provide a vital role for transforming the force. Installations enable mission accomplishment by providing information hubs, power projection platforms, combat preparation and sustainment bases, force protection, and community support. The Army has developed several initiatives to link infrastructure with transformation:

- The Army Knowledge Management (AKM) initiative will modernize the installation infrastructure to support network-centric operations and to enable Home Station Operating Centers (HSOCs) that serve as 24-hour operations hubs to support deployed units.
- Army management of installations has been placed under the Installation Management Agency (IMA) to manage base operations and funding.
- The Residential Communities Initiative (RCI) capitalizes on commercial expertise and pri-

vate capital to perform family housing management.

CHAPTER 9

BALANCING RISK—RESOURCING ARMY TRANSFORMATION

For the President's Budget FY04 (PB04), the Army made difficult decisions to compensate for directed guidance in support of the Current Force and maintain its commitment to accelerate transformation to reduce risk in the Future Force. To reduce future risk and fund Army transformational capabilities, the Army accepted a higher level of operational risk in the Current Force. The Army must continue to assess the risk in its program as it tries to balance current readiness, the well-being of its people, transformation to a future force, and new operational commitments emerging from the Global War on Terrorism (GWOT).

Risk in PB05 and Future Years Defense Programs (FYDPs). Since the submission of PB04, the global strategic environment has continued to change. As of 7 October 2003, the Army had over 327,000 Soldiers deployed in over 120 countries. These changes and the resulting aftermath have caused the Army to reexamine its risk assessment—specifically how to balance risk between the Current Force and the Future Force. The Army now has over 130,000 Soldiers conducting stability operations in Iraq. The Army's priority must be to provide organized, trained, and equipped forces to fight the GWOT.

Congressional supplemental funding has offset most of the cost for these operations. However, the use of supplemental funding does not fully reimburse the Army for ongoing operations or the redeployment of assets in support of these operations. The resulting cost of the Army's continuing global commitments introduces operational and force management risks that must be continuously evaluated in the next several FYDPs.

The Army will focus on providing flexible, responsive and accelerated resource processes for an Army at war. The Army will also shift its focus to accelerate those identified capabilities and DOTMLPF solutions associated with the Future Force and insert them into the Current Force. Nevertheless, difficult resource decisions must be made for this acceleration and insertion—the Army should be resourced to a level at which it can appropriately balance the risk between the Current and Future Forces.

As outlined at the end of this chapter, the Army's Program Change Proposals (PCPs) for PB05 reinforce the Army's commitment to both the FCS and the Future Force. The FCS and complementary systems PCP alone proposes more than \$3B in additional resources.

- Force Management risk addresses the Army's people programs and its force structure. With a high Current Force operational tempo associated with GWOT and other commitments, force management risk is higher than anticipated. The Army is taking active steps to reduce this risk in the near term. The following actions are focused on reducing this risk:
- Rotation Plan—implement a rotation plan that supports sustained global engagement.
- Force Stabilization and Unit Manning System—implement FSUMS to revise the manning system to complement the rotation-based system of sustained global engagement and minimize individual rotations.
- Modularity—initiate a reset of the Army to a provisional design. Reorganize elements of the Current Force into prototype organizations that achieve the near-term modularity required for brigade and division echelons.
- AC/RC Balance—develop force structure options to have a modular Army and a proper mix of AC/RC forces.
- Soldier and Installation as Flagships (Well-being)—synchronize programs to the rotation plan to support families and installations when Soldiers are deployed.

The Army will continue to reassess this risk in POM 06-11. Annex B of the ATR provides PB04 programmatic detail of the Army's transformational programs. It satisfies the TPG requirement for programmatic information on Army Transformation efforts.

CHAPTER 10

CONCLUSION—ARMY LONG-TERM TRANSFORMATION

The ATR is the Army Transformation strategy. It addresses necessary actions and activities across DOTMLPF domains to build and field new capabilities now that will allow the Current Force to better execute Joint operations. It explores capabilities essential for the Current and Future Forces to remain relevant, responsive, and dominant by providing a land force that remains organized, trained, and equipped for joint, inter-agency, and multinational full-spectrum operations.

Army leaders recognize that Transformation is an ongoing process, rather than an end state. Fundamental changes to the way Army forces conduct operations will expand the range of options for the President, the Secretary of Defense, and combatant commanders to deter conflict, reduce adversary options, and limit conflict escalation. A transformed Army, infused with a joint and expeditionary mindset, provides the Joint Force its essential campaign-capable and network-centric land power capability.

While environments will change and the JOCs will mature, the requirement for the Army to deliver the right Army forces at the right place and time to enable the JFC to defeat any adversary or control any situation will endure. The Army will continue to focus its efforts on balancing Army core competencies and capabilities: to train and equip Soldiers and grow leaders and to provide a relevant and ready land power capability to the combatant commander and the joint team.